



TMDL Development for Lake Lou Yaeger Watershed

Background

Over the last 30 years, waters in Illinois have been monitored for chemical, biological and physical conditions. In some cases, the conditions of those rivers and lakes fall short of the need to support basic water quality use goals. These waters are deemed impaired since they cannot meet use expectations set for them under state and federal law. When this happens Total Maximum Daily Load (TMDL) reports are developed for impaired waters to determine the maximum amount of a pollutant a water body can receive and still meet water quality standards and support its designated uses.

Designated uses include aquatic life, public water supply, swimming, recreation, fish consumption, and aesthetic quality.

TMDLs are done in stages to allow for public involvement and input. TMDL development in Illinois begins with data collection for water quality, point source discharge, precipitation, soils, geology, topography, and land use within the specific watershed. All impaired water body segments within the watershed are identified, along with potential pollutants causing the impairment. Illinois EPA determines the tools necessary to develop the TMDL. In most cases, computer models are used to simulate natural settings and calculate pollutant loads. Along with data analysis, model recommendations are made in the first stage of the TMDL development process. This information is presented at the first public meeting.

The appropriate model or models are selected based on the pollutants of concern, the amount of data available and the type of water body. In some cases, additional data needs to be collected before continuing to the next stage. The model is used to determine how much a pollutant needs to be reduced in order for the waterbody segment to be meeting its designated uses.

An implementation plan is developed for the watershed spelling out the actions necessary to achieve the goals. The plan can specify limits for point source dischargers and recommend best management practices (BMPs) for nonpoint sources. Another public meeting is held to discuss this plan and to involve the local community. Commitment to the implementation plan by the citizens who live and work in the watershed is essential for success in reducing the pollutant loads and improving water quality.

Waterbody Designated Uses and Impairments

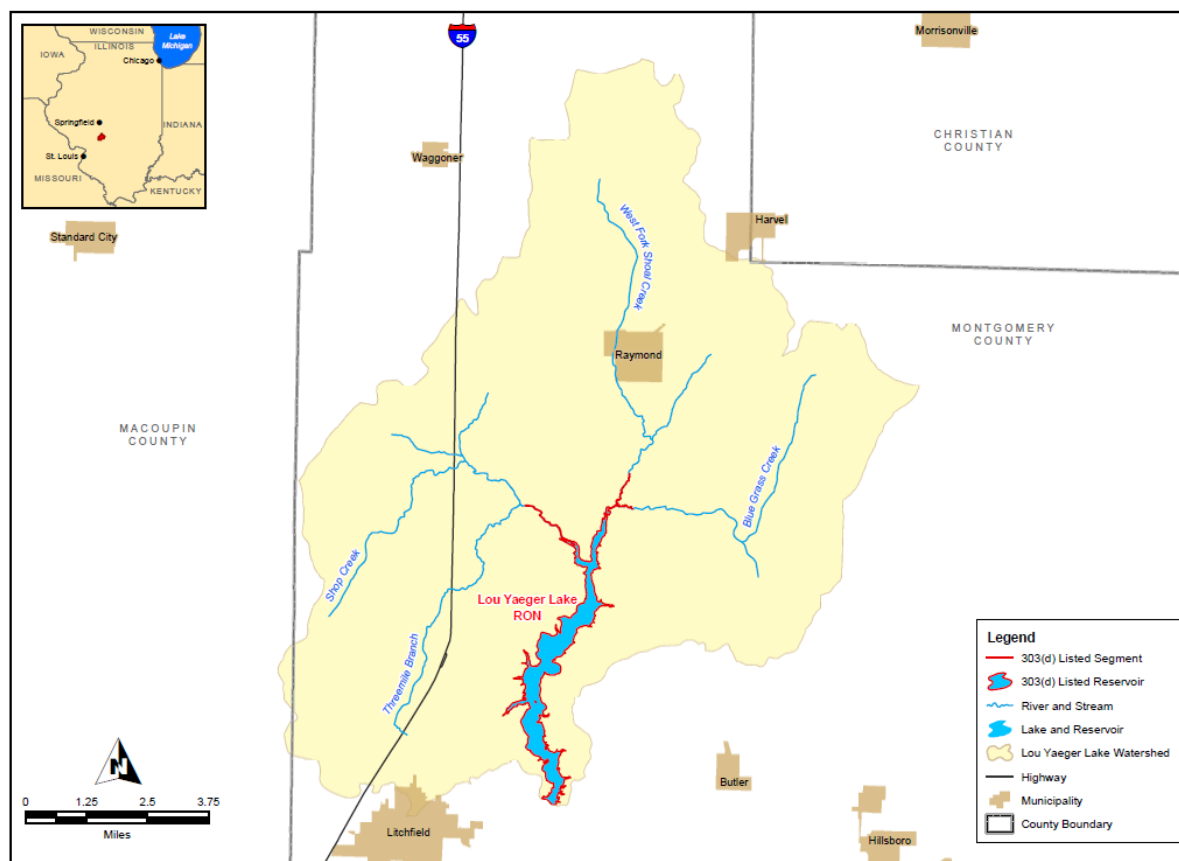
Waterbody	Designated Use	Impairment(s)
Lake Lou Yaeger (RON)	Aesthetic Quality	Phosphorus (Total), <i>Total Suspended Solids (TSS)</i>
<i>*Italicized causes of impairments do not have numeric water quality standards and a Load Reduction Strategy (LRS) may be developed where appropriate</i>		

Watershed Information

The Lake Lou Yaeger watershed is located in south-central Illinois. The watershed is 69,604 acres and is located 45 miles south of Springfield, Illinois. The majority of the watershed (approximately 69,300 acres) lies within Montgomery County. The additional acreage lies within Macoupin and Christian Counties (229 and 13 acres, respectively). Lake Lou Yaeger is located on the West Fork of Shoal Creek and has a surface area of approximately 1,268 acres.

The land cover data reveal that 52,620 acres, representing 76 percent of the total watershed area, are devoted to agricultural activities. Deciduous forests, grass/pasture, and barren land cover 15 percent of the watershed (10,338 acres). Approximately 7 percent of the watershed area (5,159 acres) is developed, urbanized land. The remaining watershed (2 percent of land area) is wetland and open water.

Watershed Map



Potential Pollutant Sources

There are two active point sources that are located within the Lake Lou Yaeger watershed. Potential nonpoint sources include: site-specific cropping practices, animal operations, and area septic systems.

For more information on this specific TMDL or the TMDL program, visit the Illinois EPA website at <http://www.epa.state.il.us/water/tmdl/>.

For information on the assessment of Illinois waters, refer to the Integrated Report and 303(d) List at <http://www.epa.state.il.us/water/tmdl/303d-list.html>.

If you have any questions, please contact the project manager, Brian Willard (Planning Unit) at 217-782-3362 or Brian.Willard@Illinois.gov or Abel Haile by phone at 217/782-3362 or email at Abel.Haile@Illinois.gov.

February 2017